

AMENDMENTS TO THE SPECIFICATION

Please amend the specification as follows. Additions are shown underlined, and deletions are shown ~~stricken through~~. Please replace paragraph number [0027] with the following:

[0027] As illustrated, the handle portion 72 generally includes a flange with a needle-holding section ~~[[82]]~~ 22 extending through a central portion of the flange 72. In one embodiment, the introducer cap 64 is formed with a needle-holding section ~~[[82]]~~ 22 comprising a lumen into which an introducer needle 66 can be subsequently inserted and secured. Alternatively, the introducer needle 66 can be molded into the material of the introducer cap 64 by any of a variety of over-molding processes available to the skilled artisan. According to one embodiment, the needle-receiving section ~~[[82]]~~ 22 extends partially into the cavity 84 of the port-engaging portion 74 to provide additional length along which the needle 66 will be supported. The supported length of the needle (i.e. the length of the needle held within the needle-holding lumen ~~[[82]]~~ 22) can vary as needed for needles of various lengths. For example, in the case of a needle with an overall length of about 1", a needle-receiving section preferably has a length of between about 3/16" and about 5/16".

Please replace paragraph number [0045] with the following:

[0045] In one embodiment, the soft cannula 52 can be secured to the funnel-shaped insert 124, and the cannula-funnel assembly can be inserted into the funnel-shaped section ~~[[122]]~~ 120 of the base member 60. In an alternative embodiment, the soft cannula 52 can be secured directly to the base member to extend from the bottom surface 118 of the base member 60 at an inner or outer surface of the tubular lower section 122 of the funnel-shaped portion as desired.

Please replace paragraphs numbers [0047] and [0048] with the following:

[0047] In order to create a self-sealing fluid pathway, the septum ~~[[114]]~~ 130 is generally made of a substantially resilient material biased toward a sealed position. In one embodiment, the septum ~~[[114]]~~ 130 is made of a molded disc of silicon, polyurethane or other appropriate material which can be secured to the port 62. The securing of the septum ~~[[114]]~~ 130 to the port 62 can be accomplished by any suitable adhesive, bonding or other securement process such as heat sealing, sonic welding, etc. In alternative embodiments a suitably resilient material such as silicone, polyurethane, or other suitable elastomeric material can be molded into the cavity 132 at the top of the port 62 (see Figure 6). In still further embodiments, the septum ~~[[114]]~~ 130 can be replaced by any of a variety

of mechanical check-valves or other seals configured to provide a re-sealable fluid pathway. In another embodiment, the septum [[114]] 130 and the body of the base member 60 can both be integrally formed from the same substantially resilient material.

[0048] According to one embodiment, as illustrated for example in Figure 8, the septum [[114]] 130 is a molded disc of a substantially resilient material that is retained in the port 62 by heat staking. As shown, a portion of a port wall 136 is provided that extends above the septum [[114]] 130 and surrounds the cavity 132 in which the septum [[114]] 130 is located. The port wall 136 is heat staked by slightly heating the material of the wall 136 to a temperature below its melting temperature, but sufficiently high to soften the material of the wall. Once the port wall 136 material has been softened, it can be deformed radially inward slightly so as to trap the septum 11[[114]] 130.4 in the cavity 132 of the port 62. The heat staking procedure can be performed uniformly around the circumference of the port, or at intervals around the wall 136. The skilled artisan will recognize that alternative methods can also be used for securing the septum within the cavity 132, such as bonding, welding, etc as described above.

Please replace paragraphs numbers [0050] and [0051] with the following:

[0050] If desired, the annular space 138 of the base member 60 can be provided with annular rings 142 to aid in release of the base member from a mold half during an injection molding process. As will be clear to the skilled artisan, it is often desirable that an injection molded part remain temporarily retained in one of the halves of an injection mold until the mold half is moved to a location over a drop bucket, at which time the part can be ejected from the mold by ejector pins. In the absence of the annular rings 142, an injection molded base member 60 may prematurely fall out of the mold. It should be noted that the base member 60 need not [[me]] be made by injection molding, and could be made by any number of other suitable processes in which case, the annular rings 142 might be excluded.

[0051] According to one embodiment, an adhesive layer 50 such as that illustrated in Figure 1 can be secured to the bottom surface of the base member 60. The adhesive layer 50 is generally configured to allow the base member 60 to adhere to a patient's skin as will be further described below. The adhesive layer 50 is typically provided with a backing layer 150 to protect the adhesive side 152 of the adhesive layer 50 from dirt, dust and other contaminants that may reduce the ability of the adhesive side 152 to securely adhere to a patient's skin and may increase the risk of infection at the injection site. The adhesive layer 50 can be secured to the bottom surface [[18]] 118 of the base member 60 by any suitable bonding substance or process. For example, the adhesive layer can be adhered to the base member with a glue or other bonding agent. Alternatively the adhesive layer 50 can be bonded to the base member 60 by heat sealing, sonic welding, or any other suitable process. Alternatively, the

function of adhering the base member 60 to a patient's skin may be accomplished by other means known to those of skill in the art.

Please replace paragraph number [0053] with the following:

[0053] The port-engaging portion [[86]] 74 of the introducer cap 64 is preferably adapted to surround the port 62 of the base member 60. This provides for a close fit between the introducer cap 64 and the base member. This close fit can aid in preventing the base member from rocking or performing other unwanted movement relative to the introducer cap 64. These same advantages can also be beneficial in the context of the infusion cap 54 as will be further described below. In one embodiment, the inner diameter of the port-engaging portion 74 is about 0.025" to about 0.1" larger than the port 62 of the base member 60. Depending upon the desired application, in alternative embodiments, the inner diameter may be outside of this range.

Please replace paragraph number [0061] with the following:

[0061] The hard cannula 170 is generally configured to extend through at least a portion of the septum 130 when the infusion cap 54 and base member 60 are assembled. Thus, the hard cannula 170 is typically dimensioned such that it extends into the port-engaging portion 74 a sufficient distance that when the wall of the port-engaging portion contacts the top surface 92 of the base member 60, the hard cannula 170 will extend through at least a portion of the septum 130. Thus, the dimension 'e' between the outlet 174 of the hard cannula 170 and the bottom edge 182 of the port-engaging portion 74 is preferably less than the dimension 'j' between the top surface 92 of the base member and the bottom of the cavity 132 in the port [[64]] 62 (see Figure 5). In alternative embodiments, the dimension 'e' can be equal to or greater than the dimension [[e']] 'j' if it is desirable that the hard cannula 170 extend only partially through the septum 130, for example. In one preferred embodiment, as illustrated in Figure 11, the hard cannula 170 extends completely through the septum 130.

Please replace paragraph number [0063] with the following:

[0063] Similarly to the introducer cap 64, the infusion cap 54 also preferably comprises release grips 100 which can be compressed to release the cap from engagement with the base member 60. In the embodiment illustrated in Figures 10, the release grips 100 are shown as scalloped convex segments located at about 90° to the wings 98 and barbed feet 94. The release grips 100 can be engaged by a user's fingers to release the cap 54 or 64 from engagement with the base member 60. By pinching the release grips 100, the circular shape of the cap

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64 is deformed into an elliptical shape with the barbed feet 94 along the major axis of the ellipse. Thus, pinching the cap 64 at the release grips 100 causes the barbed feet to move radially outwards and away from the edges of the base member 60, thereby releasing the cap 64 from the base member 60. In alternative embodiments, the release grips 100 of the introducer cap ~~[[54]]~~ 64 and/or the release grips 100 of the infusion cap 54 can comprise smooth convex sections, concave sections, or any of a variety of other shapes.

Please replace paragraph number [0067] with the following:

[0067] Once the needle 66 and soft cannula 52 have been inserted to the desired depth, the introducer cap 64 can be removed from the base member 60 and from the patient. In order to remove the introducer cap 64 from the base member 60, the release grips 100 can be engaged by a user's fingers and compressed, thereby deforming the circular cap and causing the barbed feet 94 to be released from engagement with the rim 96 of the base member 60. In alternative embodiments, the release grips 100 can be compressed by a supplemental tool. In further alternative embodiments, the introducer cap 64 can be configured such that release grips are otherwise manipulated (e.g. twisted, spread apart, etc) in order to remove the introducer cap 64 from the base member. In still further embodiments, the barbed feet 94 may be omitted, as discussed above, or replaced with a suitable alternative structure, thereby allowing a user to merely pull outward on the ~~infusion-introducer~~ cap 64 to remove the needle 66.